



# **REGION 9: PACIFIC RIM REGION** **Regional Sustainability Plan**

*Presented by Ruth Cox*

*Region 9 Regional Administrator*

**Federal Utility Partnership Working Group (FUPWG)**

**May 22<sup>nd</sup>, 2013**

# REGION 9 INFORMATION

*Pacific Rim Profile – CA, AZ, NV, HI*

## MANAGE Federal space

- ❖ **36 million RSF** in Region Nine
  - **173** owned buildings, **955** leased buildings
  - **100,000** Federal workers housed



## DESIGN & CONSTRUCT new Federal buildings

- ❖ **\$1.4 billion** in FY12 capital construction projects
- ❖ **\$318 million** in FY13 – Los Angeles Courthouse project

## PROVIDE PROCUREMENT LEADERSHIP across the Federal government

- ❖ **\$1.24 billion** in total GSA Schedule sales in FY12
- ❖ **\$468 million** to small businesses
- ❖ **34,000** fleet vehicles, **53%** of which are **Alternative Fuel Vehicles**

# REGION 9 GENERAL INFORMATION

*Leaders in Sustainability*

GSA

## ❖ LEED certified buildings:

- **Owned:** 5 current, 8 new projects under review
- **Leased:** 37 leased locations, encompassing 46 leases



## ❖ Energy Star:

- **Owned:** 24 buildings
- **Leased:** 94 leased locations encompassing 141 leases



## ❖ ARRA - American Recovery & Reinvestment Act:

- **\$5.5 billion** GSA nation-wide
- **\$586 million** for sustainable ARRA projects in R9
- **\$68 million** for energy retrofits



# REGION 9 GENERAL INFORMATION



*Facilitating Transformational Change through **Synthesizing** our  
**Unique Regional Initiatives:***



## REGION 9 ENTERPRISE MANAGEMENT | *Transforming from an Agency to an **Enterprise***

Enterprise  
Account Plans

Enterprise Comm.  
/ Marketing Plan

## REGION 9 SUSTAINABILITY PLAN | *Building Transformational Change*



Building  
Assessment MDT

Procurement  
Lifecycle MDT

Tenant Incentives  
MDT

# INTRODUCTION – R9 SUSTAINABILITY PLAN



3 phase approach

## ❖ PHASE 01 Current State

*Baseline development of the Current State of Region 9*  
Understanding Where We Are

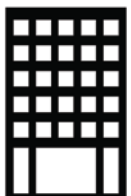
## ❖ PHASE 02 Future State

*Setting the target for the future through national metrics*  
Knowing Where We Want To Be

## ❖ PHASE 03 Developing Business Cases and the Roadmap to Action

*Prioritizing GSA's projects and programs to achieve sustainability*  
How We're Going to Get There

Using 5 FOCUS AREAS:



1: BUILDINGS



2: TRANSPORTATION



3: SUPPLY CHAIN



4: WORKPLACE  
TRANSFORMATION



5: SUSTAINABLE  
COMMUNITY

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# 1: BUILDINGS projects

## R9 SUSTAINABILITY PLAN

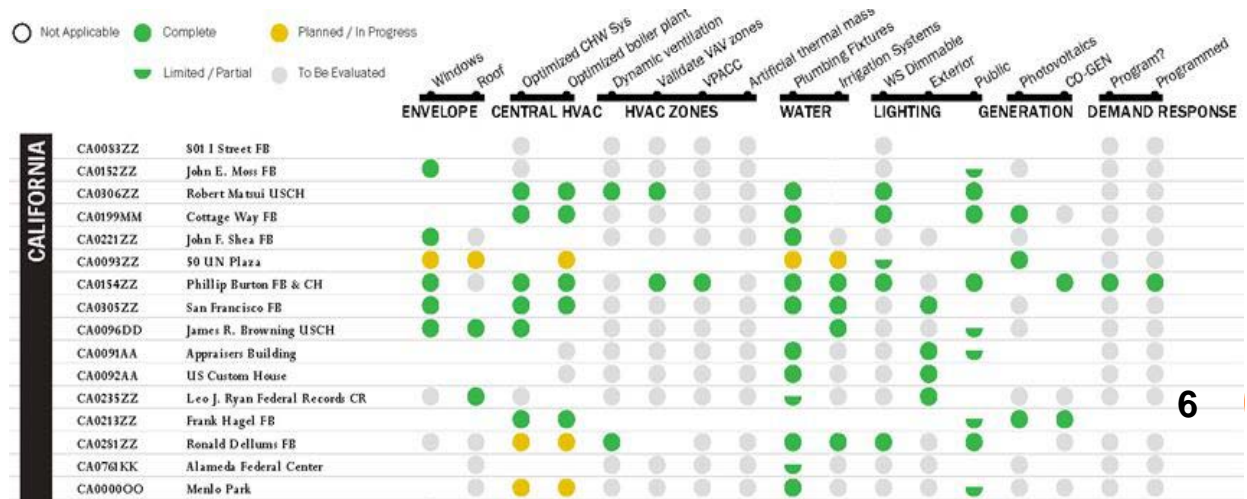


phase01: current

	KEY PERFORMANCE INDICATORS															
	\$ Saved	GHG Savings			Energy Savings Fuel Savings			Renewables Alt. Fuel			Water Savings			Waste Diversion		
		R9	Bse	Goal	R9	Base	Goal	R9	Base	Goal	R9	Base	Goal	R9	Base	Goal
BUILDINGS																
Operations																
Energy	\$ 14,025,894	8.8% ▼ FY08 28.7% 10,826 MtCO2e			12% ▼ FY03 37.5% 19 mil kWh			9% p.y. 30%			16% ▼ 47.8M gal FY07 26% potable FY10 20% industrial, landscaping, agricultural			47% p.y. 50% 2,220 tons		
Water	TBD				6,750 BTU/GSF											
Waste																
Solid	\$ 68,335	TBD	▼ FY08 50%													
Water	TBD	TBD	▼ FY08 5%													
Disposal	\$ 174,159,398															

These are industry-standard KPI's against which GSA is measuring our regional projects.

To determine these numbers, we've measured the current state of our portfolio relative to the KPIs.





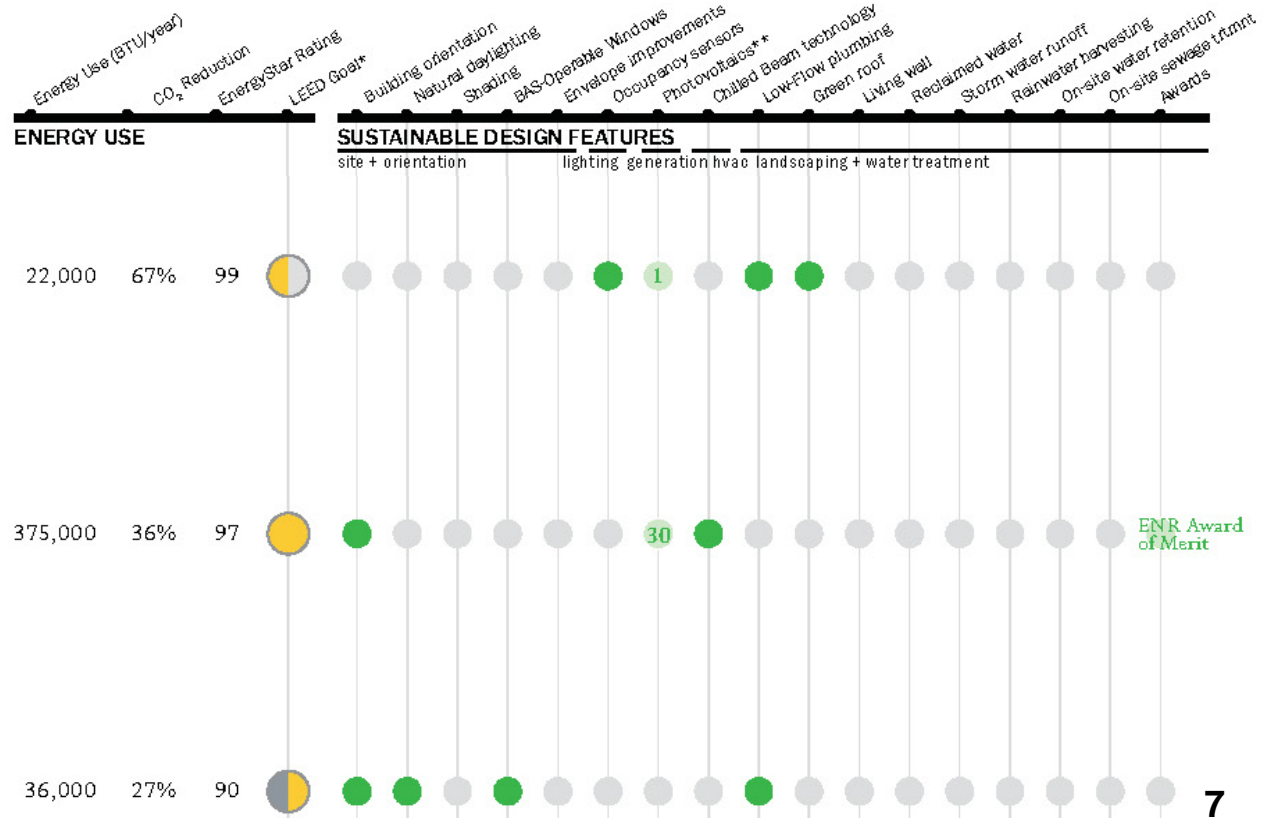
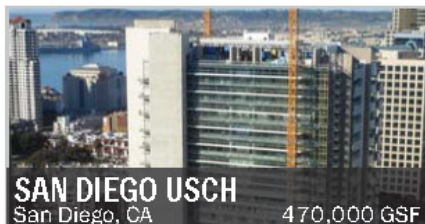
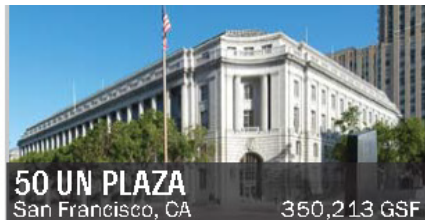
# 1: BUILDINGS projects

## R9 SUSTAINABILITY PLAN



phase01: current

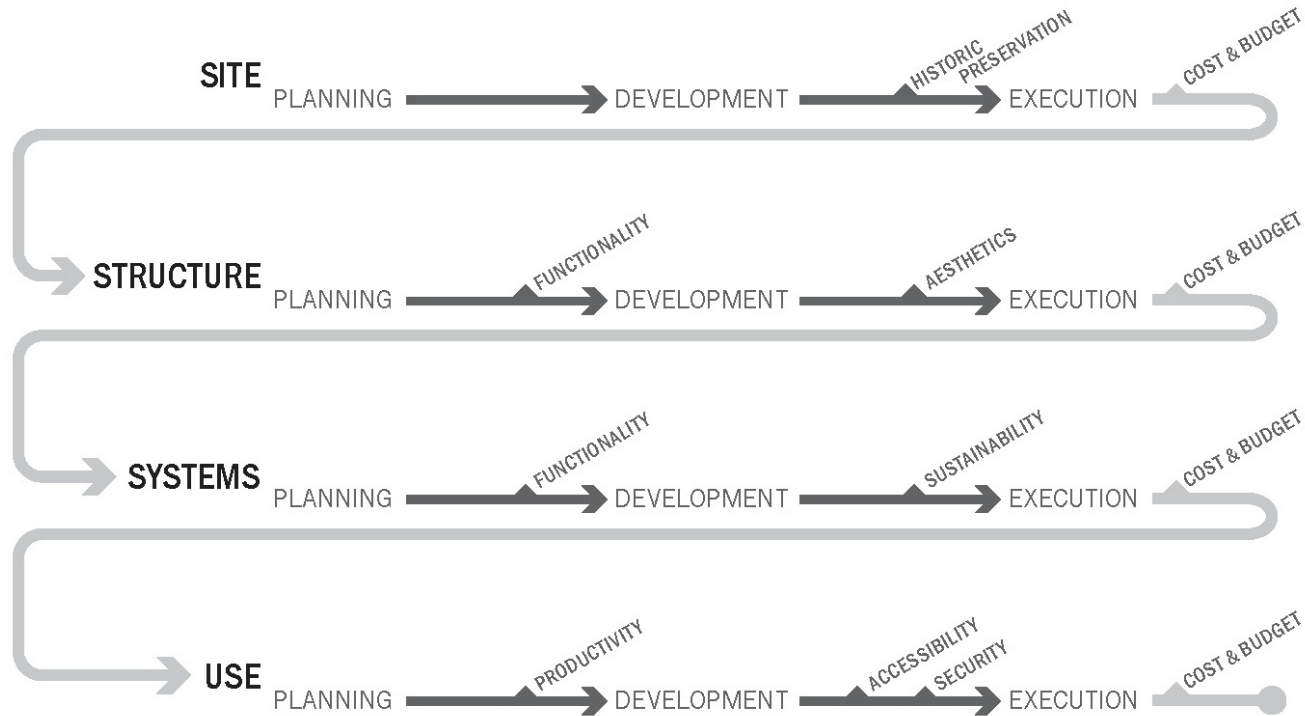
We're also auditing the sustainable design features of our capital construction projects that are currently in the works.



# 1: BUILDINGS projects

phase01: current

R9 SUSTAINABILITY PLAN



Design Process - **Traditional**



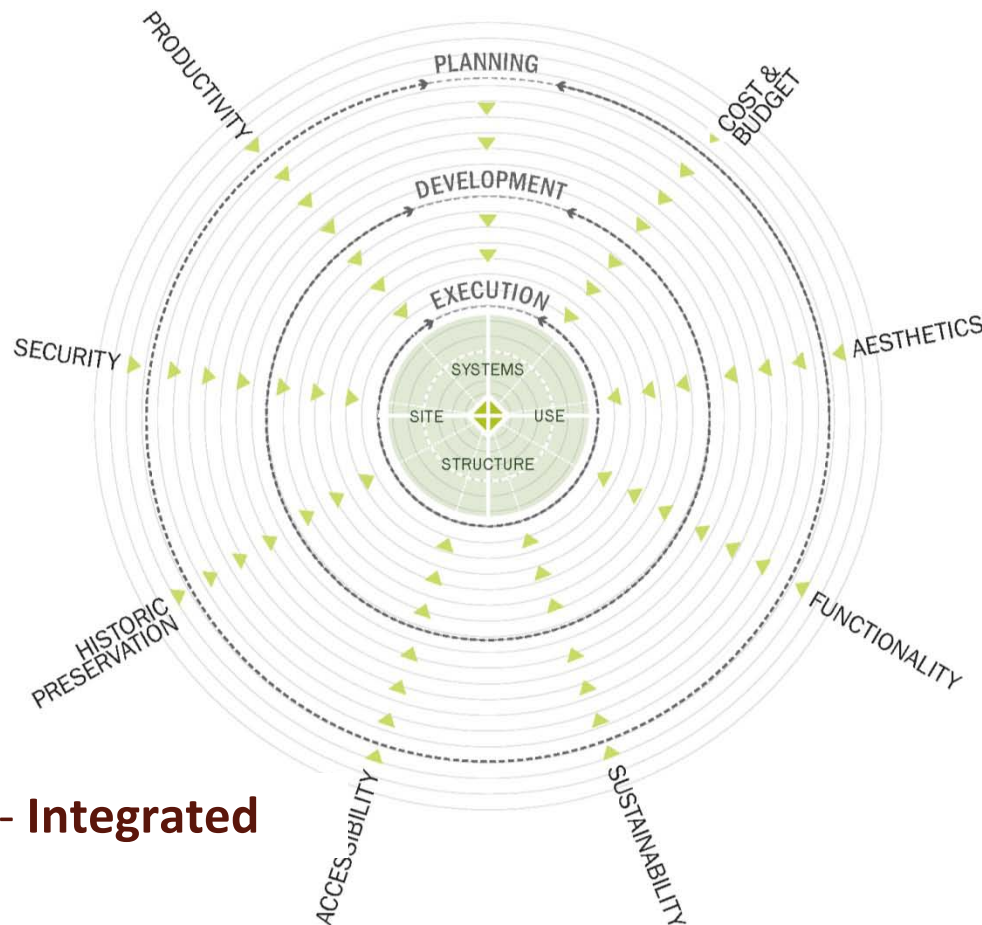
# 1: BUILDINGS projects

phase02: future

R9 SUSTAINABILITY PLAN



## ❖ BUILDING ASSESSMENT TASKFORCE



Design Process - **Integrated**

# 1: BUILDINGS



R9 SUSTAINABILITY PLAN



❖ Program Areas: *On-Site Power Generation, Water, Envelope, HVAC, Lighting, Shave Energy*

❖ Metrics:



Deployment Potential



Occupant Satisfaction



Cost Effectiveness



Energy Efficiency



Operations & Maint.

❖ Region 9 GPG Projects:

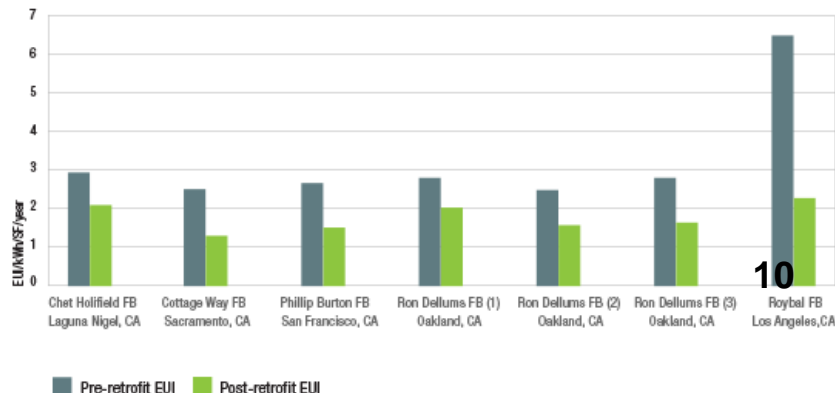
• *Occupant Responsive Lighting (completed)*



- Integrated Daylighting Systems
- Non-Chemical Water Treatment
- Solid State Replacement Lighting
- Wireless Lighting Control
- Electrochromic “Smart” Windows

ANNUAL ENERGY SAVINGS BY SITE

Energy savings ranged from 27% to 63%



# 1: BUILDINGS programs

## Incentivizing Tenant Behavior

### ❖ Enterprise Account Planning

- Education – internal & external
- Implementation experts

### ❖ Tenant Incentives MDT–

Changing occupant's behaviors

### ❖ Sustainability = **customer savings!**

Start with low-hanging fruit



Integrating the **national Plug-Load Pilot program** into our region-wide procurement strategy!



### ❖ Leveraging national tools – **SFTool**



**Sustainable Facilities Tool**

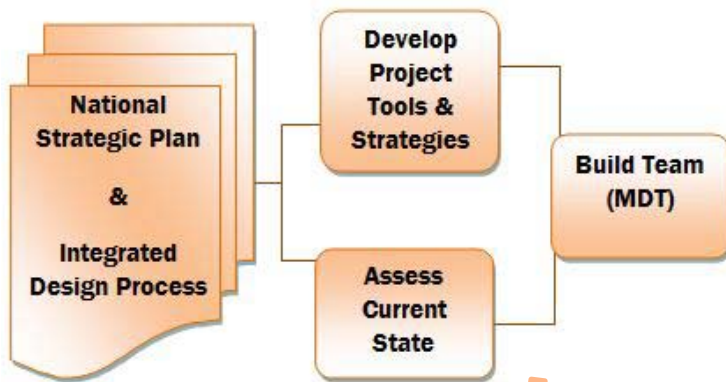
- 3D Interactive Walkthrough
- Material Comparison Tool
- Metrics, Regulations, Guidelines
- **Institutionalize** adoption for all projects!



# 1: BUILDINGS projects

## Building Assessment Taskforce

### Stage I



phase01: current

*Identifying impactful projects throughout our current portfolio in:*

- ❖ Energy
- ❖ Water

phase02: future

- ❖ Evolve into a recommending body
- ❖ Holistic approach – Whole Buildings Design Guide

*Consider all building projects which impact the consistency and integrity of all building components & **High Performance** factors*

### Mission:

Multi-Disciplinary Team conducting *Holistic Portfolio Analysis* based on the following considerations:

- ❖ **Financial**
- ❖ **Technical**
- ❖ **Geographic**



# 1: BUILDINGS highlight

## R9 SUSTAINABILITY PLAN



### Los Angeles Federal Courthouse

*Opening in 2016*

*Showcasing GSA's High Performance Building Program*

• *LEED Platinum Target*

#### **Sustainability Highlights:**

- **225 kW** High Efficiency Cooling & Heating Plants
- **400 kW** Roof Mounted Photovoltaic Array
- Enhanced Building Automated System with monitoring & diagnostic instrumentation
- Sustainable composite structural system - **23%** reduction in carbon footprint
- Tuned thermal mass - will delay peak solar load to afterhours, reducing HVAC
- Demand Controlled Ventilation (DCM)
- Optimal Lighting Design & Comprehensive Controls - occupancy sensors, daylight dimming
- Combined Cooling Heating Power (CCHP) Plant - utilizes waste



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# 1: BUILDINGS programs

## R9 SUSTAINABILITY PLAN



phase01: current

### WASTE

- Diversion – **47.61%**
- **\$504** million (personal property)
- Recycled: **742.75 tons**
- Landfill: **817.27 tons**
- Composting – **2 buildings**

### GREEN LEASING

- **38** clauses

### REAL PROPERTY DISPOSAL

- Following parameters set-out by Report of Excess

phase02: future

### WASTE

- Diversion – **75%** (CA), **50%** (AZ, NV, HI)
- Recycling – Under consideration
- Composting – Southern California rollout

### GREEN LEASING

- Education – Understanding & implementing green leases
- Enforcement/Utility usage reporting
- Tracking & monitoring Energy Star rating

### REAL PROPERTY DISPOSAL

- Integration with **Workplace Transformation** and Asset Business Planning

## 2: TRANSPORTATION

phase01: current

Region Nine's **Top Customers**  
(Vehicle Usage):



**1: Marine Corps**



**2: Army**



**3: Navy**



**4: Air Force**

U.S. AIR FORCE

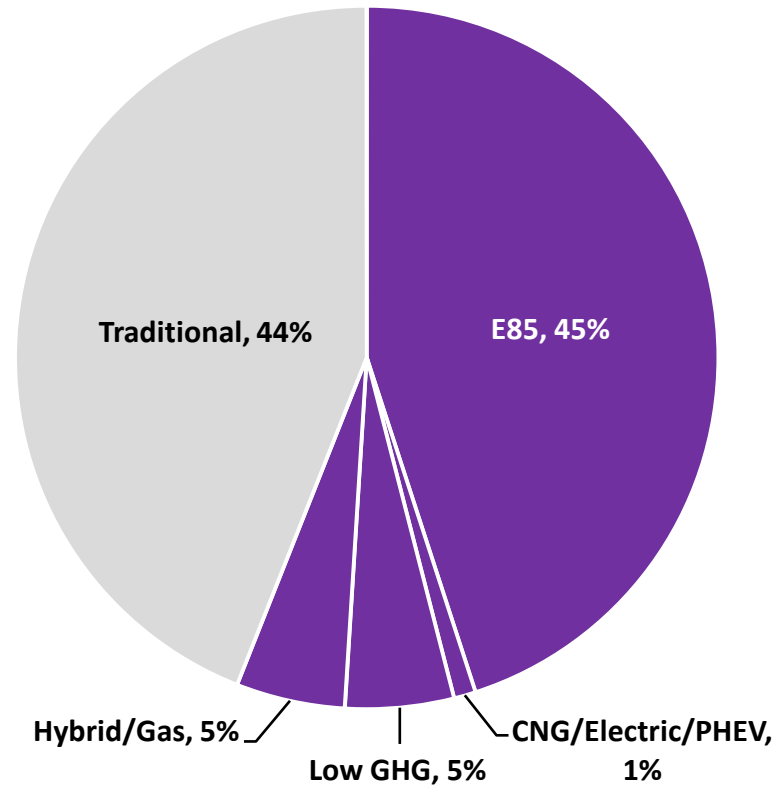


**5: Dept. of Energy**

## R9 SUSTAINABILITY PLAN

GSA

### CURRENT R9 INVENTORY



- ❖ E85 expansion
- ❖ Fleet Consolidation
- ❖ Electric Vehicle Pilot Program



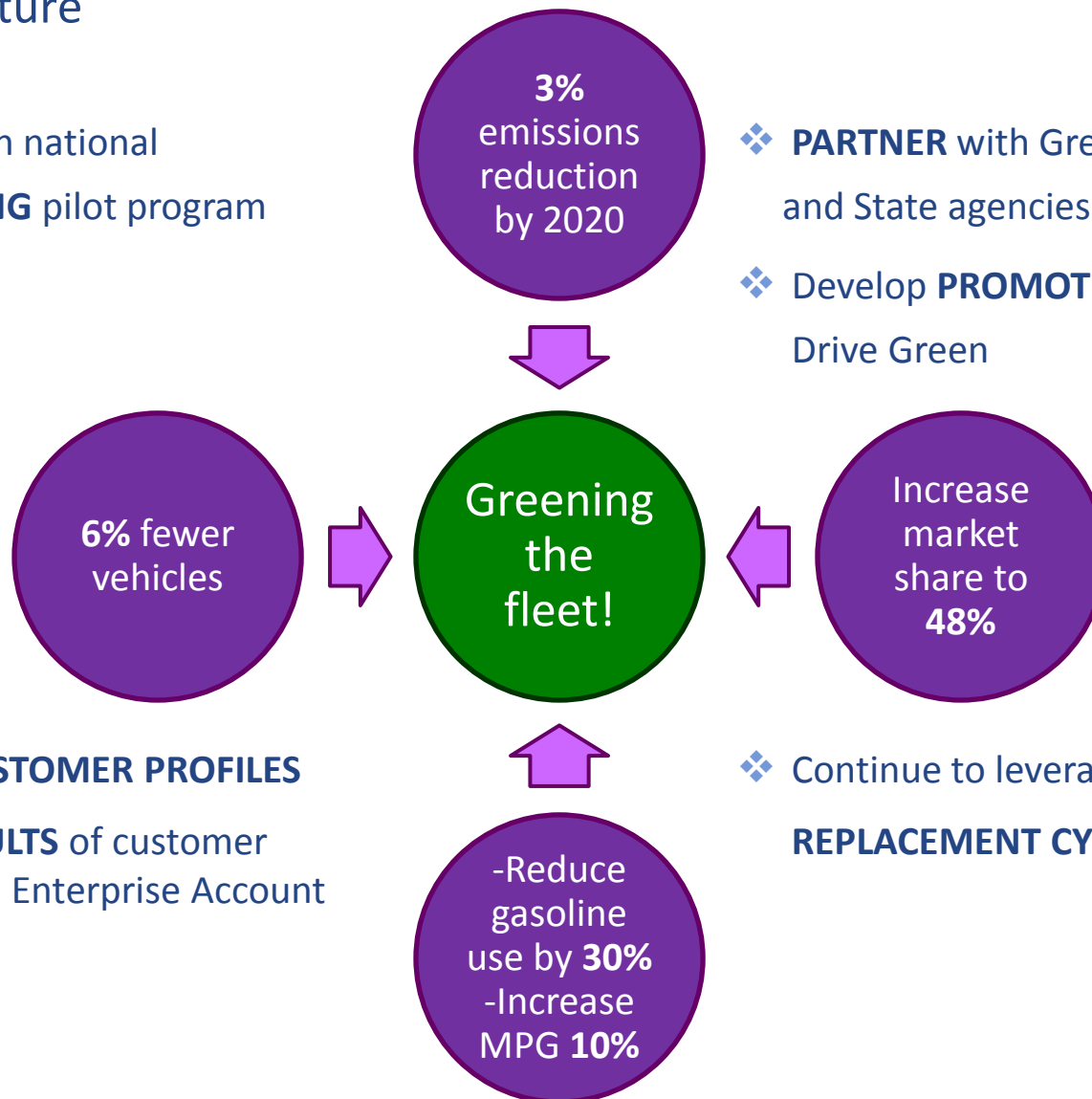
# 2: TRANSPORTATION

phase02: future

- ❖ Participate in national **CAR SHARING** pilot program

- ❖ **PARTNER** with Green Cities Coalitions and State agencies

- ❖ Develop **PROMOTIONAL MATERIAL** via Drive Green



- ❖ Develop **CUSTOMER PROFILES**
- ❖ **TRACK RESULTS** of customer outreach via Enterprise Account Planning

- ❖ Continue to leverage **REPLACEMENT CYCLE** of vehicles

# 3: SUPPLY CHAIN

phase01: current

## ❖ Regional Initiatives:

- General PURCHASING awareness training
- Green purchasing through **GSA ADVANTAGE**
- BIO-BASED product purchases
- **100%** recycled chlorine-free paper

## ❖ National Initiatives:

- **GREENGOV SUPPLY CHAIN** Partnership
- Green-only **MULTIPLE AWARD SCHEDULES**
- **E-WASTE** repurposing and recycling

R9 SUSTAINABILITY PLAN

GSA



*Advantage!®*



Contract Holder

# 3: SUPPLY CHAIN

## R9 SUSTAINABILITY PLAN



phase02: future

### ❖ Procurement Life-Cycle Multi-Disciplinary-Team

- Cradle to cradle approach (business case development)
- Align with national efforts

### ❖ Align with GREEN PROVING GROUND products

### ❖ Increase eWaste req's in IT CONTRACTS

### ❖ Educate Region 9 CONTRACTING staff on eWaste and determine applicable clauses

### ❖ Develop BLANKET PURCHASE AGREEMENT multi-disciplinary team

### ❖ Leverage existing effective **NATIONAL TOOLS** (e.g., SFTool, Carbon Footprint Calculator)

### ❖ **Customer Tracking** and Feedback for Green purchases

# 4: WORKPLACE TRANSFORMATION

*“Anytime, Anywhere, No Matter.”* Future Perfect by Stanley M. Davis

**WorkPlace+ Program:** Designing workplaces and enabling processes that promote a cultural change, resulting in:

- Increased efficiency and effectiveness through collaboration
- Reducing costs and greenhouse gas emissions
- A sustainable, healthy work environment

## **Structure of WorkPlace+**

- **WorkPlace+ Strategies:** Defining goals, benefits, and options for space utilization and mobility
- **WorkPlace+ Intelligence:** Policy & program direction, including analytics, tools, performance metrics
- **WorkPlace+ Regional POCs:** Organizational subject matter experts which can be deployed as-needed on GSA projects & procurements.

# 4: WORKPLACE TRANSFORMATION

## R9 SUSTAINABILITY PLAN

GSA

phase01: current

### COMPLETED PROJECTS:

- ❖ **New San Diego Courthouse,**  
San Diego, CA
- ❖ **BFMD Space, 450 GG,** San Francisco, CA
- ❖ **Enterprise Leadership Workspace, 450 GG,** San Francisco, CA

phase02: future

- ❖ **QUALIFY** customers for workplace transformation programs
- ❖ **DEVELOP** alternative financing for necessary supply elements
- ❖ **REDUCE** overall federally owned and leased space by 30%



# 5: SUSTAINABLE COMMUNITY

## R9 SUSTAINABILITY PLAN



### Best Practices

- GSA will develop, adopt, and most importantly, **promulgate best practices**

### Market Reinforce ment

- GSA will provide leadership and **market-reinforcement across the public sector**, at the community, city, county, state, and federal level
- Education & outreach events

### Driving Adoption

- This won't be a plan for a plan's sake. **The objective is adoption** across ALL GSA regions and throughout the public sector.



# 5: SUSTAINABLE COMMUNITY

## R9 SUSTAINABILITY PLAN

GSA

### Federal Green Challenge



#### Power Purchase Agreement:

- Enables GSA to install renewable regenerative energy without upfront funding
- Joint procurement of renewable energy
- Leveraging economies of scale to lower electricity bills

#### Partnering Agencies:



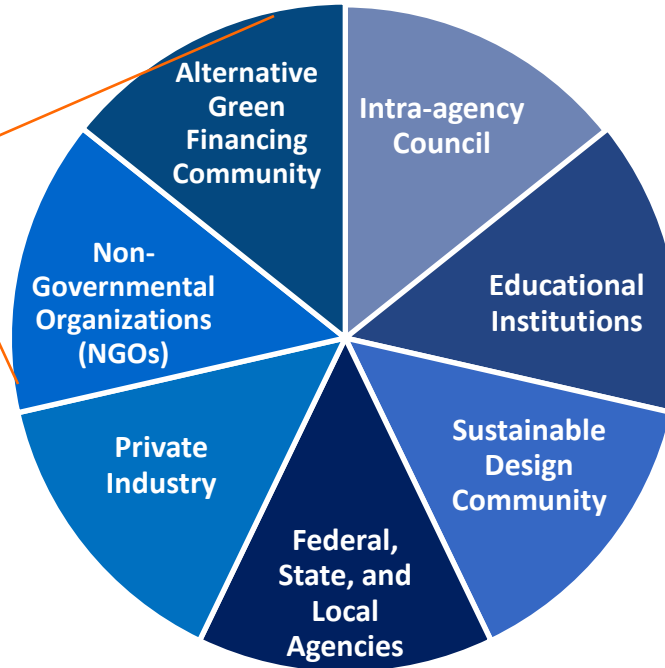
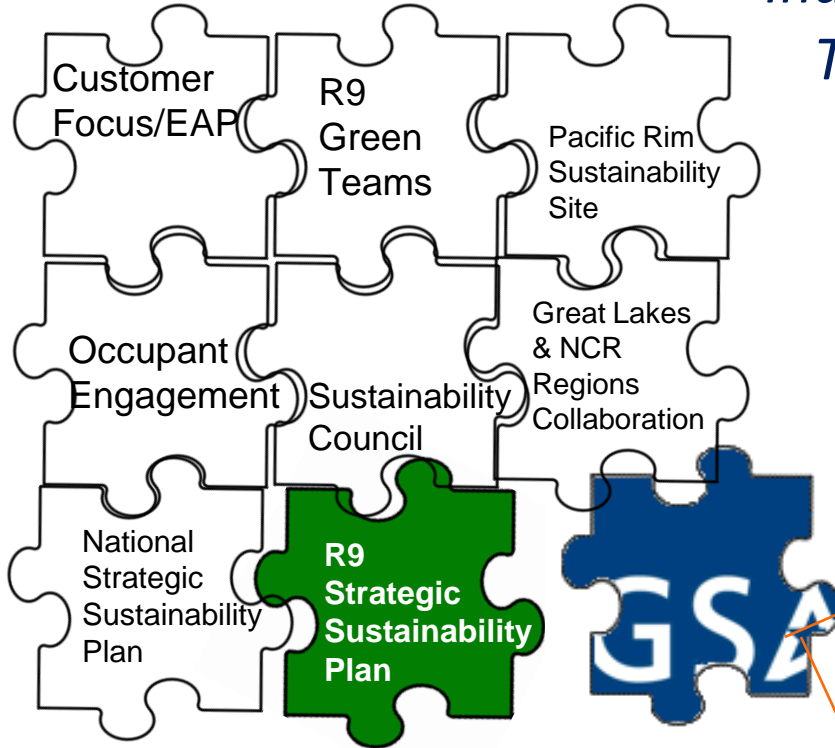


# 5: SUSTAINABLE COMMUNITY

## R9 SUSTAINABILITY PLAN

GSA

*Industry Leadership – Driving  
Transformational Change*



# PHASE III – ROADMAP TO ACTION

## Interactive, Web Based Plan Delivery:

## R9 SUSTAINABILITY PLAN



### BUILDINGS PROJECTS

#### » Retrofits



### BUILDINGS PROJECTS

#### » Retrofits



Institute dynamic building-by-building analysis and project roll-out strategy as found in Section 3.2.1.2

- Relative time of project strategy development and implementation in relation to meeting goals
- Siloed decision making
- Limited financial analysis of project benefits (simple payback) to tell the whole sustainability benefit
- Unique dynamics within each building and cumulative effects of past projects

- Establish multidisciplinary team
- Develop analysis of past project results and GPG findings to determine best fit projects
- Use existing energy studies (e.g. LCA analysis), retro-commissioning, building surveys and the 'Current State of the Portfolio' (Appendix F)
- Take full advantage of National programs (Green Proving Ground) to be a leading agent. Enhance support of designated R9 representative.
- Ensure buildings receive retro-commissioning examination every four years, rolling.

December 1, 2012

Create discrete educational and informational programs for O&M, contractors, and GSA personnel

- Resistance to new technology by O&M contractors
- General skill gap

- With DOE, create curriculum-based energy and sustainability training for facilities managers.
- Develop O&M training specific to each project type as part of initial project consideration
- Develop informational criteria on GSA's changing methodologies and goal expectations with contractors developing and executing contracts
- Develop customer info sessions to bridge project installation and post installation use
  - Use of prototype projects locally to demonstrate to customers

We are going live...click here



To see R9 Strategies click here

STRATEGY

BARRIERS

PLAN

TARGET

# Thanks!!!

*For any questions, comments, or partnership suggestions,  
please don't hesitate to contact me:*

**Email: [ruth.cox@gsa.gov](mailto:ruth.cox@gsa.gov)**

**Phone: 415-522-3001**



**Ruth F. Cox**

*Regional Administrator*

*Pacific Rim Region (Region 9)*

*U.S. General Services Administration*



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